

AMENDMENTS TO THE CLAIMS:

Kindly amend claims 1, 10-12, 15, 22, 23, 27, 34 and 35, as shown below. This listing of claims will replace all prior versions and listings of claims in the Application:

Claim 1 (currently amended): ~~Tool arrays~~ A tool array for biomedical surgery, characterized in that ~~comprising:~~

- (i) ~~the a plurality of tools each comprising tool consist of~~ layered polymer ~~micromuscles~~ microactuators arranged to induce geometrical changes and movements via an electrochemically induced change of volume in at least one polymer layer, and
- (ii) ~~the tool or tool arrays are~~ said tools being arranged as an array of tools mounted on a carrier having the form of a needle ~~being inserted~~ for insertion into a cannula/catheter through which the tools can be electrically actuated via an external means mechanism to induce a mechanical movement to act upon biological structures.

Claim 2 (withdrawn): Tool arrays according to claim 1, characterized in that the layered polymer consists of a single layered polymer.

Claim 3 (withdrawn): Tool arrays according to claim 1, characterized in that the layered polymer consists of a bi-layered polymer.

Claim 4 (withdrawn): Tool arrays according to claim 1, characterized in that the layered polymer consists of a multilayered polymer and metal layers.

Claim 5 (withdrawn): Tool arrays according to claim 1, characterized in that the mechanical movement is used to position a biological structure.

Claim 6 (withdrawn): Tool arrays according to claim 1, characterized in that the mechanical movement is used to hold a biological structure.

Claim 7 (withdrawn): Tool arrays according to claim 1, characterized in that the mechanical movement is used to cut a biological structure.

Claim 8 (withdrawn): Tool arrays according to claim 1, characterized in that the mechanical movement is used to dilate a biological structure.

Claim 9 (withdrawn): Tool arrays according to claim 1, characterized in that the mechanical movement is used to fortify a biological structure.

Claim 10 (currently amended): ~~Tool arrays~~ A tool array according to claim 1, ~~characterized in that~~ wherein the mechanical movement is used to implant a biological structure.

Claim 11 (currently amended): ~~Tool arrays~~ A tool array according to claim 1, ~~characterized in that~~ wherein a number of identical tools are located on a tool array extending along a length of the cannula, catheter or needle, and wherein ~~[[the]]~~ actuation of a tool closest to the exit of the catheter is arranged to release a tool from the tool array and is arranged to leave it at the point of exit of the catheter in order to mount the tool at/in some biological structure.

Claim 12 (currently amended): ~~Tool arrays~~ A tool array according to claim 11, ~~characterized in that~~ wherein a number of identical tools are located on the tool array extending along the catheter or needle and where each tool is arranged to become individually actuated.

Claim 13 (withdrawn): Tool arrays according to claim 11, characterized in that a number of non-identical tools are located on the tool array extending along the catheter or needle and where each tool is arranged to become individually actuated.

Claim 14 (withdrawn): Tool arrays according to claim 1, characterized in that the individual tool is a clip arranged to join biological tissues or tissue parts, and arranged to hold the said tissues or tissue parts to allow healing.

Claim 15 (currently amended): ~~Tool arrays~~ A tool array according to claim 1, ~~characterized in that the individual wherein each said tool~~ [[is]] comprises an expandable cylindrical object designed to be inserted, in a contracted state, into a biological tube, and arranged to become expanded to keep said tube in an expanded state or to join two or more biological tubes.

Claim 16 (withdrawn): Tool arrays according to claim 1, characterized in that the individual tool is a scissors.

Claim 17 (withdrawn): Tool arrays according to claim 1, characterized in that the individual tool is a knife, which is arranged on an actuator, being arranged for linear and/or angular movement.

Claim 18 (withdrawn): Tool arrays according to claim 1, characterized in that the individual tool is a sharp needle that is arranged on an actuator being arranged for linear and/or angular movement.

Claim 19 (withdrawn): Tool arrays according to claim 1, characterized in that the individual tool is a dilator.

Claim 20 (withdrawn): Tool arrays according to claim 1, characterized in that the individual tool is a clamp.

Claim 21 (withdrawn): Tool arrays according to claim 1, characterized in that the individual tool is a tweezers.

Claim 22 (currently amended): ~~Tool arrays~~ A tool array according to claim 1, ~~characterized in that wherein~~ the polymer ~~micromuscles~~ microactuators are built of layers, of which at least one is a conjugated polymer.

Claim 23 (currently amended): ~~Tool arrays~~ A tool array according to claim 22, ~~characterized in that wherein~~ the conjugated polymer is selected from the group consisting of pyrrole, aniline, thiophene, para-phenylene, vinylene, and a phenylene polymer[[s]] and copolymer[[s]], including and substituted forms thereof of the different monomers.

Claim 24 (withdrawn): Tool arrays according to claim 1, characterized in that the tool is built of bi-layered polymer, where the electrically activated volume change of said, at least one conjugated polymer is arranged to cause a bending of said bi-layer.

Claim 25 (withdrawn): Tool arrays according to claim 1, characterized in that the tool is built of multilayered polymer, where the electrically activated volume change of said, at least one conjugated polymer is arranged to cause a bending of said multilayer.

Claim 26 (withdrawn): Tool arrays according to claim 11, characterized in that each individual tool is a clip arranged to join biological tissues or tissue parts, and arranged to hold the said tissues or tissue parts to allow healing.

Claim 27 (currently amended): ~~Tool arrays~~ A tool array according to claim 11, ~~characterized in that wherein~~ each individual tool ~~[[is]]~~ comprises an expandable cylindrical object designed to be inserted, in a contracted state, into a biological tube, and arranged to become expanded to keep said tube in an expanded state or to join two or more biological tubes.

Claim 28 (withdrawn): Tool arrays according to claim 11, characterized in that the individual tool is a scissors.

Claim 29 (withdrawn): Tool arrays according to claim 11, characterized in that each individual tool is a knife, which is arranged on an actuator, being arranged for linear and/or angular movement.

Claim 30 (withdrawn): Tool arrays according to claim 11, characterized in that each individual tool is a sharp needle that is arranged on an actuator being arranged for linear and/or angular movement.

Claim 31 (withdrawn): Tool arrays according to claim 11, characterized in that each individual tool is a dilator.

Claim 32 (withdrawn): Tool arrays according to claim 11, characterized in that each individual tool is a clamp.

Claim 33 (withdrawn): Tool arrays according to claim 11, characterized in that each individual tool is a tweezers.

Claim 34 (currently amended): ~~Tool arrays~~ A tool array according to claim 11, ~~characterized in that wherein~~ the polymer ~~micromuseles~~ microactuators are built of layers, of which at least one is a conjugated polymer.

Claim 35 (currently amended): ~~Tool arrays~~ A tool array according to claim 34, ~~characterized in that wherein~~ the conjugated polymer is selected from the group consisting of pyrrole, aniline, thiophene, para-phenylene, vinylene, and a phenylene polymer[[s]] and a copolymer[[s]] ~~including and~~ substituted forms of the different monomers thereof.